

**AMENDMENTS TO THE CLAIMS:**

1-44. (CANCELED)

45. (CURRENTLY AMENDED) An isolated nucleic acid of HIV-2 having at least a portion of the nucleic acid sequence of a *pol* gene as set forth in Figure 6, wherein the isolated nucleic acid hybridizes with the nucleic acid sequence of a *pol* gene as set forth in Figure 6 in a hybridization solution comprising 50% formamide, 5X SSC, 5X Denhardt solution, 10% dextran sulfate, and 100µg/ml denatured salmon sperm DNA for 16 hours at 42°C with 2 washes for 30 minutes in a solution of 0.1X SSC and 0.1% SDS.

46. (CURRENTLY AMENDED) A nucleic acid of HIV-2 as claimed in claim 45, wherein said nucleotide sequence is a sequence that also hybridizes with at least one domain in a *pol* gene of HIV-1<sub>BRU</sub> in a hybridization solution comprising 50% formamide, 5X SSC, 5X Denhardt solution, 10% dextran sulfate, and 100µg/ml denatured salmon sperm DNA for 16 hours at 42°C with 2 washes for 30 minutes in a solution of 0.1X SSC and 0.1% SDS.

47. (NEW) A method for producing a polypeptide of HIV-2 having the amino acid sequence, which is encoded by the nucleic acid sequence of claim 45, comprising

providing a transformed host containing a DNA coding for the polypeptide and  
expressing the polypeptide.